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# **SUPERFUND FACT SHEET**

## **YORK COUNTY SOLID WASTE & REFUSE AUTHORITY LANDFILL**

### **YORK COUNTY, PENNSYLVANIA**

#### **JULY 1994**

United States Environmental Protection Agency Region III 841 Chestnut Street Philadelphia PA 19107

## **Introduction**

The United States Environmental Protection Agency (EPA) recently concluded a Remedial Investigation (RI) and Feasibility Study (FS) for the York County Solid Waste and Refuse Authority Landfill Superfund Site. The RI defines the nature and extent of the site contamination. It includes a Risk Assessment, which describes risks to human health and the environment posed by site contamination. The FS reviews site cleanup alternatives. Based on the RI/FS, EPA has issued a Proposed Plan to describe all the possible alternatives to clean up groundwater contamination at the site. The plan also presents EPA's "Preferred Alternative", and the rationale for selecting the alternative. EPA is inviting the public to comment on the clean up alternatives for the York County Solid Waste Landfill Superfund Site from July 21, 1994 -August 21, 1994. A public meeting will be held at 7 p.m., Monday, August 15, 1994 at the Eureka Fire Company to address public comment and concern. The EPA will select a final remedy for the site only after the public comment period has ended, and the information submitted is reviewed and considered.

## **Site Background**

The York County Solid Waste Landfill is located in Hopewell Township, York County. It has been owned and operated by the York County Solid Waste and Refuse Authority (YCSWRA) since 1974. The site occupies approximately 300 acres and contains both active and inactive portions. About 135 of the 300 acres were used as an unlined landfill that accepted municipal and industrial waste. The landfill accepted approximately 400 tons of waste each day.

From 1982-84, the Pennsylvania Department of Environmental Resources (PADER) identified Volatile Organic Compounds (VOC's) migrating from the site, and into residential wells near the site. PADER ordered YCSWRA to construct a lined facility at the site, to begin a groundwater monitoring and treatment program at the site, and to provide bottled water to affected residents. In 1985, YCSWRA installed additional groundwater monitoring wells. At this time, construction of the lined cells and the groundwater contamination/extraction and treatment system was completed and in operation.

In April 1985, EPA proposed the site for the National Priorities List (NPL). The site was placed on the list in July 1987. This gave the EPA the authority under Superfund to take the actions necessary to clean up the contamination. In December 1987, PADER and YCSWRA signed a Consent Order and Agreement for YCSWRA to perform an RI/FS at the site.

**Express Your Opinion!**  
**Attend the**  
**Public Meeting!**  
**Aug. 15, 1994, 7 p.m.**  
**Eureka Fire Co**  
**Stewartsville, Pa**

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# Summary of Remedial Alternatives:

**1. No Action:** The current actions that YCSWRA is performing to contain, collect, and treat the contaminated groundwater would stop. The existing landfill cap covering portions of three unlined cells would remain. The passive landfill gas venting system would remain, but the monitoring of its effectiveness would stop. Residents would also stop receiving bottled water from YCSWRA.

**2A. Existing Treatment Scheme** The current actions that YCSWRA is performing would continue. The groundwater containment, collection, and treatment system would remain in operation. If necessary, additional pumping wells will be added, and the monitoring program may be modified to PADER's standards. The cap over the three unlined cell and the passive gas venting system would continue to be maintained. The filtration system would also continue to be maintained as necessary.

**2B. Existing Treatment Scheme with Inorganics Removal by Reverse Osmosis:** This alternative contains all of the components of Alternative 2A, along with the addition of removal of inorganics through reverse osmosis. This process reduces the concentration of the contaminants through flowing from a high solvent concentration to a low solvent concentration. A waste stream is generated containing high concentrations of heavy metals that would be properly disposed of.

**2C. Existing Treatment Scheme with Inorganics Removal by Microfiltration:** This alternative combines all the elements of Alternative 2A along with inorganics removal by microfiltration. This process physically removes Inorganics from the water through adjusting the pH balance of the groundwater. A waste stream is generated that would be properly disposed of.

**2D. Existing Treatment Scheme with Inorganics Removal by Electrochemical Precipitation:** Inorganics would be removed through Electrochemical Precipitation in addition to all of the components of Alternative 2A comprises this alternative. This process uses an electrical current to destabilize the particles, and precipitate from the ground. A waste stream is generated that would be disposed of properly.

**3A. Existing Treatment Scheme with Capping:** This alternative combines Alternative 2A with the installation of a multilayer cap over the three unlined cell, and the maintenance of the cap. The cap would control the migration of the contaminants.

**3B. Existing Treatment Scheme (Inorganics Removal using Reverse Osmosis) with Capping.**

**3C. Existing Treatment Scheme (Inorganics Removal using Microfiltration) with Capping.**

**3D. Existing Treatment Scheme (Inorganics Removal by Electrochemical Precipitation) with Capping.**

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#### Alternatives cont.

**4A. Existing Treatment Scheme with Enhanced Biodegradation:** This alternative contains all of the elements of Alternative 2A with the addition of Enhanced Biodegradation. The existing groundwater system would be used with additional equipment to re-infiltrate the extracted groundwater. A distribution and re-infiltration system along with the installation of an equalization capacity for storage of the treated water to act as a buffer for the re-infiltration system would be used.

**4B. Existing Treatment Scheme (Inorganics Removal by Reverse Osmosis) with Enhanced Biodegradation.**

**4C. Existing Treatment Scheme (Inorganics Removal by Microfiltration) with Enhanced Biodegradation.**

**4D. Existing Treatment Scheme (Inorganics Removal by Electrochemical Precipitation) with Enhanced Biodegradation.**

### EPA's Preferred Alternative

EPA believes that Existing Treatment Scheme (2A) is the best alternative at the York County Solid Waste Landfill Superfund Site. This alternative is already in action, and is performing effectively. Alternative 2A adequately protects human health and the environment through controlling groundwater contamination. The current operating groundwater treatment system is working efficiently. This system may require the addition of equipment to meet water quality standards. This installation may be easily implemented. The existing landfill cap will remain in place, and will continue to contain the contaminants. EPA will continue to maintain the filtration system to residents as necessary.

### EPA Evaluation Criteria

Overall Protection of Human Health and the Environment  
Compliance with Federal or States Laws and Regulations  
Long-term effectiveness  
Short-term effectiveness  
Reduction of the toxicity  
Magnitude or Volume of the Contaminants  
Feasibility of Implementing the Alternative  
Cost-effectiveness  
State Acceptance of the Alternative  
Community Acceptance of the Alternative

**Public Comment Period  
Open From  
July 21-August 21, 1994  
Send in Your  
Comments and Questions  
on the Proposed Plan  
For the  
York County Landfill  
Superfund Site**

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# For More Information

For more information on the various programs and services available to you, please contact the following offices:

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**EPA Wants Your Contribution**

Individuals can contribute to the protection of the environment in many ways. Here are some suggestions:

(1) **Recycling**

Save time and money by recycling.

Recycling is a simple way to help the environment.

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